

# Surgery and IBD

Although frequently thought of as a “last resort,” surgery for both Crohn’s disease and ulcerative colitis can be an integral part of therapy. In some cases, an operation is needed on an urgent or emergency basis. In these circumstances, the removal of bowel or correction of other problems related to IBD is needed in order to quickly restore the health of the patient. In other cases, an operation is used to supplement the medical treatments that are available. Surgery is best used in conjunction with medical therapy, and in selected cases, surgery may best be used early in the course of the disease. Overall, a large proportion of patients with IBD will require some type of surgical procedure during the course of their illness.

The goals of surgical therapy are to reduce or resolve symptoms, to improve general health, to improve nutritional status, growth and sexual development, while trying to preserve as much bowel as possible. The decision about surgical therapy should be based on the clinical history of the patient with additional information gained by x-ray and endoscopy testing. Patients and their families should discuss this decision with the entire team, which usually consists of multiple specialists that may include a pediatric gastroenterologist, pediatric surgeon, nurse practitioner, nutritionist, and psychologist.

## GENERAL TERMS

There are two main techniques used to perform IBD surgery: laparotomy and laparoscopy. Laparotomy, or open surgery, is a more traditional method using one abdominal incision. A more recently perfected technique called laparoscopy utilizes instruments that are inserted into the abdominal cavity through several small openings, thus leaving several, but very small scars. Technically, laparoscopic surgery may be somewhat more challenging, and should only be performed by a surgeon familiar with the technique; however, in the right hands it allows for an easier and faster recovery. Today, many operations for IBD can be performed laparoscopically. Ultimately, it is safest for the surgeon to make the final deci-

sion on which type of procedure will be performed at the time of the surgery.

## SURGERY FOR ULCERATIVE COLITIS

In ulcerative colitis, the inflamed portion of bowel is limited to the colon (large intestine). Therefore, removal of the entire colon can be considered a cure of the disease. However, removal of the entire colon may be associated with complications and commonly requires certain lifestyle adjustments. The type of surgery performed depends on the exact reasons for the surgery, and should be tailored individually for each patient.

TABLE 1.	
SURGICAL INDICATIONS FOR ULCERATIVE COLITIS	
<b>Emergent/Urgent</b>	<ul style="list-style-type: none"> <li>Uncontrollable bleeding</li> <li>Unresponsive to medical therapy</li> <li>Bowel perforation</li> <li>Bowel obstruction</li> <li>Toxic megacolon</li> <li>Cancer</li> </ul>
<b>Elective</b>	<ul style="list-style-type: none"> <li>Unresponsive to medical therapy</li> </ul>

### • Types Of Surgical Procedures For Ulcerative Colitis:

1. Proctocolectomy with end-ileostomy: This involves removal of the large bowel with the end of the small bowel coming out into a bag on the abdomen. This opening of the intestine through the skin surface is called an ostomy.
2. Total colectomy with ileal pouch anal anastomosis: This surgery involves removal of the large bowel with creation of a “pouch” (reservoir) out of the small bowel which is connected to the anus. The creation

of the pouch allows for reduced frequency of bowel movements after the operation. This is the preferred surgery for ulcerative colitis when possible.

3. Total colectomy with ileorectal anastomosis: This involves removal of the large intestine with a straight connection between the end of the small bowel and the anus without creation of a pouch. Without the creation of the pouch, there tends to be more frequent bowel movements for the first 6-12 months after the operation.

## SURGERY FOR CROHN'S DISEASE

As with ulcerative colitis, a patient with Crohn's disease may develop complications that require an emergency or urgent operation. In contrast to ulcerative colitis, any operation for Crohn's disease carries with it a significant chance of disease recurrence and the need for further operations, and thus should not be looked on as a definitive cure. Despite this, there are still several scenarios in which elective surgery is still the correct decision for a child with Crohn's disease.

For example, occasionally there is a segment of bowel that is so diseased that it does not heal even with the strongest medications. This is especially important if the diseased segment is affecting the growth and development of that particular patient. Additionally, once an area of bowel gets significantly scarred (stricture), it is unlikely that any medications can get that area to improve. This area is usually associated with narrowing of the bowel and can cause symptoms of a bowel blockage (obstruction). Although patients with these types of complications may not need an emergency operation, they may not feel better until after the diseased areas of bowel are removed.

### • Types of Surgical Procedures for Crohn's Disease:

1. Strictureplasty: This involves cutting the surface of the bowel over the stricture, then sewing the bowel wall back together perpendicular to the direction of the incision. This widens the caliber of the bowel to allow easier passage of bowel contents, although it does shorten the bowel slightly.
2. Limited bowel resection (removal of a diseased segment of bowel): This generally involves removal

of as little bowel as possible, but enough to alleviate the complications that the diseased segment of bowel was causing.

3. A bowel diversion with ostomy is a procedure that involves diverting the flow of stool through the bowel by cutting the intestine at a level above the severely diseased bowel, and bringing it to the skin surface through an ostomy. Stool then drains into a bag attached to the skin by adhesives rather than through the anus. This operation can allow severely diseased regions of bowel to heal, and can be temporary or permanent.
4. Patients with Crohn's disease may also need operations to drain collections of pus inside the abdomen (abscess), or to help treat abnormal connections (fistulas) between the bowel and other locations such as other bowel, bladder, vagina or skin. These conditions can be especially problematic in the area around the anus (perianal disease).

**TABLE 2.**

### INDICATIONS FOR SURGERY IN CROHN'S DISEASE

#### Emergent/Urgent

- Uncontrollable bleeding
- Obstruction
- Perforation
- Abscess or fistula

#### Elective

- Failure of medical therapy
- Stricture
- Perianal disease

Whenever an operation for a child or adolescent with IBD is being considered, it is important to choose a surgeon who is familiar with the unique aspects of pediatric care, and with the various surgical techniques, including state-of-the-art advances in the field of IBD surgery. Various support organizations may provide valuable information on quality of life after surgery. Also, it may be beneficial for surgical candidates to talk to those who have undergone similar procedures. It is always advisable to make home care arrangements and address health insurance administrative issues beforehand.